REMARKS

Reconsideration and allowance are respectfully requested.

The office action art rejection cites US Patent 4,665,514 but consistently refers to "Chiang ..." However, since the record does not have any patent with the name "Chiang", Applicant has assumed, as below, that the Examiner is actually relying on the "Ching" patent having the same Patent number: 4,665,514. Clarification is requested if this is incorrect.

Claims 4-7 and 9-15 are patentable under 35 U.S.C. 102(b) over Ching (US Patent 4,665,514).

Ching relates to the traditional Digital Circuit Multiplication Equipment (DCME) technology which is inapposite to the claimed invention.

To be anticipating, a prior art reference must disclose "each and every limitation of the claimed invention[,] ... must be enabling[,] and must describe ... [the] claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulsen, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

The DCME technology involves conversion of N circuit switched carrier lines (T1/E1) into smaller number M of data carrier lines by compressing the audio signal received on the circuits, multiplexing with signalling information and packing the resulting data on the data-carrier lines. The ratio of N/M can be 4 to 16 depending on compression techniques used.

DCME must work in pairs and always in point-to-point

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configuration because the packaging format is highly proprietary and designed for minimal overhead. It is not possible to put this data on a general purposed packet network, such as the internet, without adding routing header to each voice packet which would increase the bandwidth considerably. Hence the remote DCME will decompress the data and regenerate N circuit switched lines identical to the original N lines so that the system looks from the outside exactly like N point-to-point carrier lines interconnecting two circuit switches.

DCME are largely deployed in the world to save bandwidth on expensive routes and a phone call could go through several DCME pairs while it is routed through the public telephone network which effects the voice quality due to the multiple compression/decompression stages.

Ching's invention takes the DCME concept and improves it by implementing a data switch instead of a TDM switch at the nodes of the network. This way the voice degradation which is inherent to multiple compression/decompression is avoided.

Furthermore, the following (non-limiting) features additionally distinguish the invention from Ching and show why the two are inapposite:

* Ching requires dedicated long distant carrier lines to transport the voice; **the claimed invention works on already deployed general purpose packet networks;**

* Ching requires every packet of every channel to be demultiplexed and a routing header added before they can be switched by the packet switch; **the claimed invention only adds a microheader (much smaller than a routing header) to each voice packet and only one routing header per frame containing many voice packets;**

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* If Ching is extended to a general purpose packet network, it would be different from the current situation where every voice packet has a routing header, causing a doubling in bandwidth compared to the voice bandwidth; **the claimed invention is precisely intended to get rid of routing header on every voice packet and keep the overhead low at packet format;**

* In Ching the packet switch is just a means to switch calls in a node, it is not a transmission element; **in the claimed invention the packet network is the transmission element.**

Thus, lacking the claimed elements, Ching cannot anticipate the claimed invention. Moreover Ching, being mutually contradictory with the claimed invention, cannot render obvious any of the claimed features, making all the present claims patentable over the reference.

For an invention to be anticipated, it must be demonstrated that each and every element of the claimed invention is present in the "four corners" of a single prior art, either expressly described therein or under the principle of inherency. <u>Lewmar Marine Inc. v Barient Inc.</u>, 3 USPQ2d 1766, 1767-1768 (CAFC, 1987). The absence from prior art reference any claimed element negates anticipation. <u>Kloster Speedsteel AB v. Crucible, Inc.</u>, 230 USPQ 81, 84 (Fed. Cir. 1986).

Claims 5-7 are patentable under 103(a) over Ching in view of Goldberg (US Patent 6,389,038).

As pointed out above, Ching teaches away from the claimed invention. Therefore, any further combination with other references will also lead away from the present claims.

The Goldberg method only applies to uncompressed voice and does not include the concept of the micro header. There is no

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motivation, teaching or suggestion to add the claimed micro header to the Goldberg frame structure. Contrastingly, the micro header allows for different types of data to be multiplexed (voice, fax, G729, G723.1 ... etc.) which adds considerable scope to the claimed invention, is absent in Goldberg, and cannot therefore render the claimed invention obvious.

Goldberg assumes that all packets in the superframe have the same length (no micro header) while NOP does not assume this. Therefore different types of traffic can be multiplexed with NOP but not with the Goldberg method.

The Examiner's observation that "it would have been obvious to one of ordinary skill in the art ... to combine Goldberg with Ching **"so as to have an updated and current integrated voice and data network providing an efficient and cost effective communications network"** is not well taken, because it flies against the requirement for an obviousness holding mandating some teaching or suggestion within the references rather than hindsight construction.

"It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 23 USPQ2d 1783, 1784 (CAFC, August 1992), quoting from In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). "This court has previously stated that one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." **Id.** quoting

from In re Fine, 5 USPQ2d 1600 (CAFC, 1988).

There is no substantiating evidence of such teaching or suggestion within the references nor in the office action. The claimed invention is unique and non-obvious because compression inherently includes different packet sizes and types (silence, G723.1, G729, Fax ... etc.).

The Board, in Ex parte Levengood, 28 USPQ2d 1300, 1301 (Board of App. and Inter. 1993), observed:

> "The only suggestion for the examiner's combination of the isolated teachings of the applied references improperly stems from appellant's disclosure and not from the applied prior art. In re Ehrreich, 200 USPQ 504 (CCPA 1979). At best, the examiner's comments regarding obviousness amount to an assertion that one of ordinary skill in the art would have been able to arrive at the appellant's invention because he had the necessary skills to carry out the requisite... steps. This is an inappropriate standard for obviousness."

Claim 11 is patentable over Ching in view of Chuah (US Patent 6,408,001).

As pointed out above, Ching teaches away from the claimed invention. Therefore, any further combination with other references will also lead away from the present claims.

Chuah is only a router to router IP header removal technique by label assignment and therefore it is not multiplexing like NOP. It requires all routers to co operate which is not required with NOP. The 3-bytes header referred to in the Chuah method is not a micro NOP header but just one application of what a VoIP application could generate for its own purpose. These 3-bytes are not used in the Chuah method which only deals with the IP header.

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Obviousness is tested by what the combined teachings of the references would have suggested to those of ordinary skill in the art. It cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Teachings of references can be combined only if there is some suggestion or incentive to do so. In re Fine, 5 USPQ2d 1596, 1599 (CAFC, 1988).

The present invention, NOP, is an innovative use of voice compression packet bundling and switching technique which is not taught, suggested or inherently provided by the references of record. Nothing in the references teaches or suggests adding a micro header inside the superframe to split the payload in a more generic way rendering the present claims patentable over the references.

Citing In re Gordon, 221 USPQ, 1127, the court pointed out, "the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification". In re Fritch, 23 USPQ2d 1783, 1784 (CAFC, August 1992). In the same case, In re Gordon, the court found a proposed modification inappropriate for an obviousness inquiry when the modification rendered the prior art reference inoperable for its intended purpose, which is exactly the resultant effect of combining Ching and Chuah.

Since Applicant has presented a novel, unique and non-obvious invention, reconsideration and allowance are respectfully

requested.

Respectfully,

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